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The University of Chicago

FOUNDED BY JOHN D. ROCKEFELLER

QUARTERLY ANNOUNCEMENTS

THE AUTUMN QUARTER, 1904

EXPLANATIONS AND NOTES

I. MATRICULATION AND REGISTRATION.

1. **Time of Registration.**
   a) *Students in residence* during the Summer Quarter will register for the Autumn Quarter during the week beginning August 22.
   b) Students entering the University *for the first time*, or resuming work after an absence of a Quarter, will register for the Autumn Quarter on or before Saturday, October 1, 1904.
2. **Order of Registration.** — The usual registration cards will be filled with names of departments and numbers of courses selected, and will be left with the clerk of the dean with whom registration is effected.
3. **Waiting List.**—Students' names are enrolled in classes only when tuition has been paid. In the case of classes for which there is a waiting list, places will be reserved for three days for those who have been registered. If any students for such a course have not paid their tuition at the close of the third day, the place will not be reserved longer, but will be thrown open to students upon the waiting list who have paid their tuition.
4. **Changes in Registration.**—Registration being once effected, change of the same, unless caused by the University, is permitted only 1) with the consent of the Dean, and 2) on payment of a fee of *one dollar* for each instance of change.
5. **Abbreviations.** — The following abbreviations are used
   a) **For Buildings:**
      A = Anatomy Building.
      B = Botany Building.
      C = Cobb Lecture Hall.
      E = Ellis Hall.
      Ed = School of Education.
      FAR = Fine Arts Building.
      G = Gymnasium Building.
      Gr = Green Hall.
      H = Haskell Museum.
      K = Kent Chemical Laboratory.
      L = Law Building.
      Lx = Lexington Hall.
      P = Physiology Building.
      Psy Lab = Psychological Laboratory, 5704 Ellis av.
      R = Ryerson Physical Laboratory.
      W = Walker Museum.
      Y = Yerkes Observatory.
      Z = Zoölogy Building.
   b) **For Rooms:** A, B, C, and D refer to the floors in Cobb Lecture Hall, beginning with the ground floor as A. The rooms are numbered, *e.g.*, C 2 D = Cobb Hall, Room No. 2, 4th floor.

II. FEES.

ALL FEES ARE PAYABLE TO THE REGISTRAR, COBB LECTURE HALL, ROOM 7 A.

SPECIAL NOTICE.—*All tuition and laboratory fees are due and payable on or before the* FIRST *day of* EACH QUARTER. *Delay on the part of the student may be avoided by sending a* CHEQUE *for the amount due to the Registrar, who will return a receipt at once.*

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	I. PHILOSOPHY	I A. PSYCHOLOGY	II. POLITICAL ECONOMY	III. POLITICAL SCIENCE	IV. HISTORY	V. HISTORY OF ART	VI. SOCIOLOGY AND ANTHROPOLOGY	VI A. HOUSEHOLD ADMINISTRATION	VII. COMPARATIVE RELIGION
8:30	31 Philosophy in Relation to Science; Ancient Thought (Mead) Ⅱ	63 Genetic Psychology (Gore) ₵ 7 D Prerequ.: Elementary Psychology 1 A *Psychology*[1] (Moore) ₵ 2 A See 11:00 and 2:00	1a *Principles of Political Economy*[1] (Hill) ₵ 11 c (Prerequisite: Courses 3 and 5) 5 Commercial Geography[2] (Goode) ₵ 10 c 40 Theory of Value (Davenport) ₵ 16 c	16 The Development of Civil Liberty (Judson) ₵ 9 c Open to Seniors with 4 Mj credit in Pol. Science	2 *The Modern Period*[1] (Warren) ₵ 6 A 83 American History: The Colonial Period (1492-1789) (Shepardson) ₵ 7 c 74 France under Louis XIV (Thompson) ₵ 8 c		26 Social Origins (Thomas) ₵ 17 c 72 An Introduction to Sociology (Vincent) ₵ 12 c	122 Food and Dietetics (Norton) Lect.: M, W, Th 8:30 Lab.: M, Tu 2:00-4:00 Prerequ.: Course 121 or its equivalent Social Origins (Thomas) (See VI-26) *Gen. Inorg. Chemistry* (McCoy and Holmes) (See XX-2) *Elementary Organic Chemistry* (Jones) (See XX-4) Textiles I (See School of Education 171)	
9:30	2 *Ethics*[1] (Mead) Ⅱ 61 The History of Educational Theories and Practice from Ancient Times to the 18th Century (Locke) Ed	17 Advanced Psychology (Angell) Psy Lab	70 Training Course in Statistics (Cummings) ₵ 3 c 24 Financial History of the United States (Cummings) ₵ 11 c 45 Organization of Business Enterprise (Veblen) ₵ 10 c	41 The Elements of International Law (Judson) ₵ 9 c Prerequ.: Course 1 or its equivalent	1 *The Mediaeval Period*[1] (Thompson) ₵ 6 A 93 United States History from 1829 to 1850 (Shepardson) ₵ 7 c 100 The elements of Historical Method (Jameson) ₵ 8 c Open to Graduates only	2 Greek Art to the Age of Alexander (Tarbell) ₵ 2 B Open to Seniors	24 Art and the Artist Class (Thomas) ₵ 17 c 94 Survey of General Sociology (Small) ₵ 16 c	1 *Elemen. Physiology* (Lingle and Brown) (See XXIV-1) 127 Evolution of the House (Norton) Ed	
11:00	4 History of Greek Philosophy (Moore) Ⅱ 26 The Philosophy of Kant (Tufts)	1B *Psychology*[1] (Watson) ₵ 6 A See 9:30 and 2:00	6 Modern Industries ( ) 20 History of Pol. Economy (Veblen) ₵ 11 c	1 *Civil Government in the United States*[1] (Merriam) ₵ 9 c	13 Constitutional and Political History of England to the reign of Edward I. (Terry) ₵ 16 c 72 England from 1685 to 1714 (Warren) ₵ 7 c 90 Seminar: Early English Institutions (Terry) ₵ 16 c M 10:30-12:30		42 House Sanitation (Talbot) See VI A-42 53 The Family (Henderson) ₵ 17 c 51 *Contemporary Society in the United States* (Vincent) ₵ 12 c	42 House Sanitation (Talbot) ₵ 10 c The Family (Henderson) (See VI-53)	1 *An Outline History of Religion* (Goodspeed) ₵ 25
12:00			1b *Principles of Pol. Econ.*[1] (Davenport) ₵ 11 c See 8:30 4 Hist. of Com. (Morris) ₵ 10 c 50 Money and Practical Economics (Laughlin) ₵ 12 c	14 Comparative Politics IV: Municipal Government (Merriam) ₵ 9 c	7 The Dark Ages: 350 A. D. to 814 A. D. (Thompson) ₵ 7 c 19 Hist. of Israel to the Time of Solomon (Goodspeed) ₵ 25 Prerequ.: Course 4 89 Introd. to the Study of English History (Terry) ₵ 16 (Open to Undergraduates who have completed an Elementary Course in English history.) 97 The Expansion of Europe (Dennis) ₵ 8 c		63 Ecclesiastical Sociology (Henderson) ₵ 17 c 79 The Democratic Movement in the United States (Small) ₵ 15 B	*Elementary General Chemistry* (Smith) (See XX-1)	
2:00		1C *Psychology*[1] (Ames) ₵ 6 A See 9:30 and 11:00 10 Experimental Psychology (Watson) Psy Lab Lect.: 2:00-3:00 Lab. work: 2:00-4:00	3 *Economic and Social History*[2] (Morris) ₵ 11 c 60 Railway Transportation (Hill) ₵ 9 c		4 The History of Antiquity to the Fall of the Persian Empire (Goodspeed) ₵ 25 10 Europe During the Reformation (Schwill) ₵ 7 c 78 England and France, 1815-1852 (Dennis) ₵ 8 c	4[1] Mediæval and Renaissance Sculpture (Zug) ₵ 7 B Open to Seniors	88 Seminar: Problems in Methodology and Classification (Small) M 2:00-4:00 ₵ 2 c	10 The Organization of the Retail Market (Breckinridge) ₵ 10 c (Open to Juniors) 122 Food and Dietetics (Norton) Ed See 8:30 Lab.: M, Tu 2:00-4:00 124 Special Methods in the Preparation of Food Mj or ½ Mj (Norton) Ed Lab.: Th, F 2:00-4:30 (Open to Seniors)	
3:00	49 History of Æsthetic Theory (Tufts) Ⅱ 92 Special Research (Locke) 3:00-5:00		Oral Debates (Huston) M 3:00 6:00 See XV-10 Argumentation (Huston) W, F 3:00 See XV-9	31 Gen. Constitutional Law I (Freund) Ⅱ See Law School Announcements	65 Prussia in the 18th and 19th Centuries (Schwill) ₵ 7 c	8[1] Raphael (Zug) ₵ 8 B	45 Modern Problems in Household Administration (Talbot) Tu, Th 3:00-5:00 See VI A-45	45 Modern Problems in Household Administration (Talbot) ₵ 10 c Tu, Th 3:00-5:00	
4:00	Seminar: Greek Philosophical Literature (Shorey) W. 4:00-6:00 See XI-63 [1] Prerequisite: 12 Majors of College work. Required of all students before taking a Bachelor's Degree, except as stated in the *Undergraduate Handbook*, § 13, No. 7. *Note.*—For additional courses in Education see IV, *The College of Education*, p. 7 of these ANNOUNCEMENTS. Courses 29A, 50, 92, see p. 8	[1] See note 1 under Philosophy. Course 13, see p. 8	[1] Course 1 in the Autumn Quarter is open only to students who express to their deans a bona fide intention to elect 2 in the Winter Quarter. It is required in the pre-legal Course. [2] Courses 3 and 5 form the two Majors required of all Junior College students in the College of Commerce and Administration and should precede Course 1. Course 80, see p. 8	51 Seminar in Politics (Judson) ₵ 1 c Tu 4:00-6:00 For advanced students in Political Science. [1] Students who have had an adequate course in Civil Government, substantially equivalent to the above, in the high school or academy will be excused from this course. Otherwise Course 1 is a prerequisite to all courses in the department.	96 The Balkan States (Milyoukov) ₵ 6A 110 American Colonial Charters and other Letters Patent M 4:00-6:00 (Jameson) Ⅱ [1] Required of all students except as stated in the *Undergraduate Handbook*, § 13, No. 7. [2] Required in the pre-legal Course.	[1] In both courses occasional visits to the Art Institute will be required exercises.	58 Seminar: Methods of Social Amelioration. (Henderson) Th 4:00-6:00 ₵ 2 c	*General Biology* (Lillie) (See XXII-2) Textiles, IV (See School of Education 174) Art Course in Sewing (Mitchell) (See School of Education 180) 51 Special Research (Talbot) ₵ 10 c	For Course 10 see p. 8

I. COURSES OFFERED BY THE FACULTIES OF ARTS, LITERATURE, AND SCIENCE—REVISED FOR AUTUMN QUARTER, 1904

...ates Major (=1 exercise daily for a quarter); M. Minor (=1 exercise daily for a term, six weeks); DMj and DM, Double Major and Double Minor respectively (=2 exercises daily for the same periods.) All courses are Majors unless otherwise indicated. Junior College Courses are printed in *italics*; Senior College Courses in bold face type; Graduate Courses in Roman.

...N. OF ...ON

8:30

9:30

11:00

12:00

2:00

3:00

4:00

VIII. SEMITIC LANGUAGES AND LITERATURES

198 Arabic Literature of the Jews
Mj (Hirsch) D 23

210 Beginning Hieroglyphic Breasted D 24

212 Translation of Egyptian Texts
Mj Breasted D 24

130 Hakkikut Theory
Mj (Hirsch) D 23

212 Translation of Egyptian Texts from the Classic Period
(Breasted) D 24

216 Egyptian Literature
Mj Breasted D 24

2 Historical Hebrew the Book of Samuel
Mj (Willett) D 23

139 Rabbinical Philosophy
M IT Hirsch) D 23

144 Beginning Syriac
(E. F. Harper) D 23

115 The Rise of the Jewish State
Mj (Willett) D 23

136 History of Jewish Sects
Mj (Hirsch) D 23

222 Coptic Language
Mj (Breasted) D 24

150 Assyrian Language
Mj (E. F. Harper) D 23

1 Hebrew Language
Mj (Price) D 23

113 History of the Hebrews from the Beginning to Solomon
Mj (G. S. Goodspeed) D 23

84A The Origin, Growth, and Character of the Prophetic Books
Mj (Price) D 24
Required
116 History of Antiquity through the Persian Empire
Mj (G. S. Goodspeed) D 23

26 Seminar: Ex-Vel
Mj (Price) Tu, F D 23

Hour to be Arranged
162 Epistolary Literature
Mj (E. F. Harper) D 23

Course 27 and 30, see p. 8

IX. BIBLICAL AND PATRISTIC GREEK

35 Christian Literature to Eusebius
Mj (Goodspeed) D 23

1 New Testament Greek
Mj (Goodspeed) D 23
Required
33 Epistle to Romans
Mj (Burton) D 23

41 New Testament Quotations
Mj (Burton) D 23

44 Rapid Reading in the Septuagint
(Votaw) D 23

X. SANSKRIT AND COMP. PHILOL.

1 General Introductions to the Study of Indo-European Philology (Buck) C 12 B

10 Sanskrit (Buck) C 12 B

Course 27 and 30, see p. 8

XI. GREEK

4 Introduction to Greek Tragedy (Castle) C 9 B

24 Aristotle Politics (Capps) C 7 B

38 Private Orations of Demosthenes (Tarbell) C 2 B

2 Plato: Apology and Crito, Xenophon: Memorabilia 11 00 12:00 (Owen) C 1 B

Homer (Owen) C 7 B

13 Beginning Greek (Moffat) C 7 B

36 Lectures on Greek Literature: Poetry (Shorey) C 2 B

10 *Elementary Greek; Xenophon's Anabasis* (——) M, Th 4:30-6:30 F 11 16

60 The Greek Theater (Capps) M 4:00-6:00

63 Seminar: Greek Philosophical Literature (Shorey) C 2 B W 4:00-6:00

XII. LATIN

4 *Cicero, De Senectute; Terence, Phormio; Translation of Sight and Hearing; the Writing of Latin*
Sec. a (men) (Ballou) E 1
Sec. b (women) (Lang) E 4
Sec 11 00 and 3:00

5 *Livy* (Bechtel) C 15 B
Prerequ. Course 4

27 The Life and Works of Virgil (Miller) C 10 B

40 Teachers' Training Course (Hale) C 8 B

1A *Cicero, Orations*[1, 3]
Sec. a (men) (Ballou) E 1
Sec. b (women) (Frank) E 4

55 Early Latin (Abbott) C 8 B

6 *Horace: Odes*[1]
(Frank) C 9 B
Prerequ. Courses 4 and 5

4 *Cicero, De Senectute; Terence, Phormio; Translation of Sight and Hearing; the Writing of Latin*
Sec. c (men) (Miller) E 3
Sec. d (women) (Ballou) E 4
Sec 8:30 and 3:00

7 *Tacitus* (Hendrickson) C 8 B

17 Horace: Satires and Epistles (Hendrickson) C 8 B

59 The Institutes of Justinian (Bechtel) C 9 B

52 Roman Private Life (Laing) C 8 B

4 *Cicero, De Senectute; Terence, Phormio;* Sec. e (women) (Frank) E 2
Sec 8:30 and 11:00

80 Seminar: Collegiate Latin (Abbott) C 8 B
Tu 4:00-6:00

84 Seminar: Comparative Syntax of Latin and Greek (Hale) C 3 B
Th 4:00-6:00

[1, 5, and 6 required of all candidates for A B or Ph B degree.
[2 1A and 2B required of all candidates for A B or Ph B degree who enter with only two units of credit in Latin.
[3 Required of all candidates for the degree of Ph B (Com. and Adm.) or S B who enter with only two units of credit in Latin (excepting where substitution is permitted.)

XIII. ROMANCE

1 *Elementary French*[1]
Sec. a (men) (Neff) E 4
Sec. c (women) (David) E 4
Sec 11 00

4 *Practice in Speaking and Writing French*[2]
(Ingres) C 12 B
Prerequ. Course 3

15 French Romantic Writers (Wallace) C 16 B

39 French Literature in the Sixteenth Century (Jenkins) C 9 B

3 *Intermediate French*[1]
Sec. a (men) (Williamson) E 3
Sec. b (women) (David) E 3

5 *Practice in Speaking and Writing French*[2]
(Ingres) C 12 B
Prerequ. Course 4

6 *Adv. French* (Neff) C 12 B

11 Comedies of Molière (Wallace) C 16 B

41 Readings in Old French Literature (Jenkins) C 9 B

1 *Elementary French*[1]
Sec. b (men) (Williamson) E 5
Sec. d (women) (Neff) E 2
Sec 8:30 (Buchanan) E 4

8 *Outline History in French Literature* (Ingres) C 8 B
Prerequ. Courses 5 and 6

21 La Littérature Française au 17e Siècle (Dubedout) C 9 B

2 *Elementary French*[1]
Sec. c (men) (Neff) E 2
Sec. b (women) (Williamson) E 6

24 Fénelon (Dubedout) C 10 B

7 *Modern French Readings*[1]
(Buchanan) C 15 B

51 Elementary Italian (Howland) C 12 C

71 Elementary Spanish (Buchanan) C 7 B

92 Dante in English (Howland) C 12 C

66 History of Old Italian Literature (Howland) C 9 B

[1 Courses 1, 2, 3 and 4 (or 5) should be taken in consecutive quarters and in that order
[2 Courses 4 and 5 are elective practice courses
Students who begin French in the University will take Course 1 and 2 Those who receive credit for one unit of French on admission will begin with Course 3. Those who receive credit for two units will begin with Course 4 or 5. Those who receive credit for three units will consult with the departmental examiner before registering

XIV. GERMAN

1 *Elementary German*
Sec. a (men) (Goettsch) E 6
Sec. b (women) Sec 12:00 (Schätze) E 16

4 *Elementary German Composition* (von Noé) C 11 B

5 *Modern German Readings* (——) C 15 B

1 *Elementary German*
Sec. b (women) (Allen) E 1

15 Deutscher Satzbau und Stil (Becker) C 11 B

48 Goethe's Dama — A Study of Goethe as a Dramatist (Schütze) C 10 B

6 German Comedies (von Noé) C 15 B

3 *Intermediate German*
33 Reine: 1T, Prose
2T, Lyrical Poetry (von Klenze) C 10 B

71 Early Modieval Latin Lyrics (Allen) C 2 B

2 *Elementary German*
Sec a (men) Sec 8:30 (Goettsch) E 4

11 Modern Danish (——) C 9 B

87 Introduction to Germanic Philology (Wood) C 10 C

81 Gothic (Wood) C 10 C

Course 70, see p. 8

XV. ENGLISH

45 English Literature 1700-1744 (Reynolds) C 8 B

68 American Literature to 1864 (Brieger) C 10 B

1 *Rhetoric and English Composition*[1]
Sec. a (men) E 3
Sec. c (men) E 5
Sec. b (women) E 1
Sec. d (women) E 2
Sec 12 00 and 3:00

4 English Composition

40A *An Introduction to English Literature*[1, 4]
(Reynolds) C 8 B

41 *Shakspere*
(MacClintock) C 11 B

76 Milton (Carpenter) C 15 B

3A *English Composition*[1]
Sec. a (men) (Fling) E 7
Sec. b (women)

28 Chaucer The Canterbury Tales (Manly) C 8 B

42 English Literature 1557-1599 (Lovett) C 10 B

1 *Rhetoric and English Composition*[1]
Sec. g (women) E 1
Sec 9:30 and 3:00

5 English Composition (Lovett) C 10 B

83 The Drama in England before Shakspere (Manly) C 8 B

History of the Novel in England (Herrick) See XV-37

The Origin, Growth, and Character of the Prophetic Books (Price) See VIII-84

Dante in English (Howland) See XIII-92

Lectures on Greek Literature: Poetry (Shorey) See XI-36

History of Æsthetic Theory (Tufts) See I-49

Courses 53, 55, 57, 58, see p. 8

XVI. GENERAL LITERATURE

XVII. MATHEMATICS

37 Advanced Calculus, I (Differential Equations) (Lunn) W 36
Prerequ. Differential and Integral Calculus
171 Seminar A: General Seminar (Moore)
Sa 8 30-10:00

See ASTRONOMY 5
121 Theory of Functions of a Complex Variable (Bôcher) W 38
Prerequ. Advanced Calculus I, II, III

1 *Required Mathematics* I (Laboratory Method) 11:00-1:00
Sec. a, c (men) (Veblen) E 9
Sec. b, d (women) (Young) E 11
118 Calculus of Variations (Bôcher) W 38
Prerequ.: Advanced Interval Calculus and a certain general maturity
141 Modern Analytic Geometry (Maschke) W 36
Prerequ. Theory of Equations and Calculus

0 *Solid Geometry* Sec. a (Epsteen) W 33
1 *Required Mathematics* Sec 11:00
31 Solid Analytics and Determinants (Maschke)
Prerequ. Plane Analytics and Differentials
81 Finite Groups with Applications, I (Dickson) W 38
Prerequ. Theory of Functions

0 *Solid Geometry* Sec. a (men) (Epsteen) E 9
Sec. b (women) (Wilson) E 19
1 *Required Mathematics* Sec. e (men) (Dickson) E 8
Sec. f (women) (Lunn) E 16
18 Calculus (Moore) E 9 11
Sec 2:00-4:00 Sec 3:00
Prerequ. Courses 1, 2, 3 or their equivalents

18 Calculus Sec 2:00

1 Required of all students not credited with Solid Geometry on admission
2 Required of all students

XVIII. ASTRONOMY & ASTROPHYS.

Analytic Mechanics (Gale) W 32
Prerequ. Differential and Integral Calculus
25 Dynamics of a System of Bodies (Moulton) W 35

Courses 44, 45, A, B, C, D, see p. 8

XIX. PHYSICS

1B *Mechanics, Molecular Physics, and Heat* (Hobbs) W 41
Sec 9:30
Prerequ. Entrance Physics, or both Majors of Course 0

15 Anal. Mechanics (Gale) W 32
Prerequ. Differential and Integral Calculus

18 Experimental Physics
8:30-10:30 (Kinsley) W 19
Sec 9:30
Prerequ. Differential and Integral Calculus, Physics 1, 2, and 3

1A *Mechanics, Molecular Physics, and Heat*
Sec 8:30

18 Experimental Physics
Sec 8:30

00 *Elementary Physics* (Hobbs) M, Tu, F Sec 3:00 W 32

1B *Mechanics, Molecular Physics, and Heat* (Mann)
11 00-1:00 Sec 12:00 W 41
Prerequ. Entrance Physics or both Majors of Course 0

13 Electricity and Magnetism (Kinsley) W 19
Prerequ. Differential and Integral Calculus, Physics 1, 2, and 3

14 The Pedagogy of Physics (Mann) W 41

18 *Mechanics, Molecular Physics, and Heat*
Sec 11:00

31 Theoretical Physics (Michelson) W 32
Prerequ. Physics II, 12, and 13

00 *Elementary Physics* (Hobbs) W, Th 3:00-5:00
Sec 11:00

40 Seminar: History of the Development of Physical Ideas (Mann) W 29

Courses 32 and 33, see p. 8

XX. CHEMISTRY

2b *General Inorganic Chemistry I*[1] (McCoy and Holmes)
Lect: Th, F Rec. Tu W 20
Lab.: M, Tu, F 8:30-10:30; and 11:00-12:00 W 33
Sec 9 30 and 11:00
Lab. fee, $5.00
Prerequ. Entrance Chemistry or Course 0, and Entrance Physics

2a *General Inorganic Chemistry: I*[2] (McCoy)
Lect.: Th, F Rec. Tu W 20
Lab. fee, $5.00

4 *Elementary Chemistry* (Jones) W 23
Lect.: M, Tu, W W 23
Lab.: Th, F 8:30-10:30, and 11:00-12:00 W 42
Prerequ. Course 3 or 6
Lab fee, $5.00

35 *Carbohydrates* ½ Mj
M, Th (Stieglitz) W 22

1b *Elementary General Chemistry*
(Smith) W 20
Lect.: Th, F 10:00-1:00 W 36
Lect.: Sec 12:00 W 4
2b Sec 8:30 W 4
4 *Lab.*: Th, Fr 8:30-10:30 and 11 00-12:00 W 13
Lab fee, $5.00

2b Sec 8:30
4 *Lab.*: Th, F 11:00-12:00
Sec 8:30

1 *Elem. Gen. Chemistry*[1, 3] (Smith) Sec. a. Lect.: M, Tu, Th Lab., Sec 2:00 W 20
Sec. b. Lect.: M, Tu, W Lab., Sec 9:30 W 20
Lab. fee, $5.00

14 Organic Chemistry Lect.: M, Tu (Nef) W 22
Prerequ.: Qualitative Analysis

29 Chemical Dynamics ½ Mj
Lect.: M, Tu (McCoy) W 22
Prerequ. Elementary Physics and Organic Chemistry, Calculus

1 *Elem. General Chemistry*[1]
Sec. a. Lab.: Th, F (Smith) W 36
2:00 5:00
Lect., Sec 12:00
Lab. fee, $5.00

2 *Gen'l Inorganic Chemistry I*[2]
Sec. a Lab.: M, Tu (McCoy) W 23
2:00-5:00 Sec 8:30 W 36
Lab fee, $2.00

5 Qualitative Analysis Mj or DM (Stieglitz and Holmes)
Lect.: M, Th W 42
Lab.: 8 hrs. a week
Prerequ. XX-5, or 2B
Lab. fee, $5.00

7 Qualitative Analysis (continuation of 6) Mj or DM (Holmes)
Lect.: Tu W 22
Lab.: 8 hrs. a week W 42

8 Quantitative Analysis Mj or DM (Stieglitz and Barnard)
Lect.: W W 36
Lab.: 8 hrs. a week W 31
Prerequ. XX-6, 7
Lab fee, $5.00

[1 Courses 1 and 2 are required of students in the College of Science who did not receive credit for Chemistry on admission.— The lectures and class room work of Course 1 or 2 may be taken by Graduate students without the Laboratory work or Laboratory fee
[2 In cases of conflict arrangements may be made to work Wed., 2 00-5 00, or Sat., 9 00-1 00, but not at any other time Each section is limited to 40.

Courses 9, 10, 11, 13, 20, 21, 22, 25, 26, 27, 28B, 31, 32, 33a, 33b, 33c, 33d, 43, and methods 33, see p. 8

XXI. GEOLOGY XXIa. GEOGRAPHY

15 Geographic Geology, Mj or DMj (Salisbury and Barrows)
Prerequ. Physiography, Elementary Geology, Chemistry and Physics

5 *Invertebrate Zoology* (Child)
Lect. Tu, Th 2 00
Lab. M, W, F 2:00-4:00 Mj
Prerequ. Course 3
Lab fee, $2.50

10 Vertebrate Anatomy Mj or DMj (Tower)
Lec., F
Lab. afternoons, 4 or 10 hours per week

1 Physiography (Salisbury)
30 Petrology Mj or DMj (Iddings)
Prerequ. Course 12

5 *Invertebrate Zoology* (Child)
Sec 2:00

10 Vertebrate Anatomy
Sec 9:30, 2 00 and 4:00

13 Field Zoology (Guild)
Sec 2:00

2 *General Biology* (Lillie and ——)
Lec., M, W, F
Lab.: Afternoons
Lab fee, $2.50

10 Vertebrate Anatomy
Sec 9:30, 2:00 and 3:00

Courses 41 and 49, see p. 8

XXII. ZOOLOGY

10 Vertebrate Anatomy Mj or DMj (Tower)
Lect. M, W, F 9 30
Lab., M, W, F 2:00-5:00
Prerequ. Courses 3, 5, 8 and 9, or their equivalents
Lab. fee, $2.50 or $5.00

6 *The Geography of Commerce* (Goode)

11 Introduction to Mineralogy Physical and Geometrical Crystallography (Iddings)
Prerequ. General Physics and General Inorganic Chemistry

4 Meteorology and Climatology (Gorrie)

1 *Elementary Zoology* (Strong)
Lect., M, W, F 4 00
Lab., M, W, F 2 00-4 00
Lab fee, $2.50

Courses 30, 33, 40, 43, see p. 8

XXIII. ANATOMY

5 Human Osteology (Harvey and others)
Lect.: W Mj Sp 23
Lab.: Sec 11:00-1:00
Laboratory fee, $1.25

10 Splanchnology, Histology, Cytology M 17
(Hinsley and assist.)
Lect.: M, F 25 13
Lab.: M, F, 10:30-1 00 Th, 11 00-1 00 R 4
Laboratory fee, $1.25

11 Course 10, continued M 27
Same hours as 10

6 Lab. T, W R 4
T, W, 11:00-1:00 R 4
Laboratory fee, $ 125

10, 11 Lab. M, Th, F Sec 9:30

6 Lab. T, W Sec 11:00

10, 11 Lab. M, Th, F Sec 9 30

Courses 15, 40, and 41 see p. 8

XXIV. PHYSIOLOGY

13 Digestion, Metabolism, Absorption, Secretion, Muscle, Heat 1½ Mj
(Stewart and Guthrie)
Rec., F, S 28
15 Special Physiology of Mammals ½ Mj
(Guthrie)
Lab.: S 8:00-12 30

1 *Physiology of Circulation, Respiration, Digestion and Absorption*
Lec.: Three a week
Lab.: 4 hrs. a week
Mj (Lingle and ——)
13 Digestion, Metabolism, Absorption, Secretion, Muscle, Heat 1½ Mj
Lect.: M, Tu, W, 9 30 (Stewart) W 25
Lab.: Sec. a Th, F 2 00-5:30
Sec. b, Th, F 9:30-1 00 W 11, 12, 13
Lab. fee, $2.50
15 Lab. Sec 8 30

13 Lab. Sec. b Sec 9:30

13 Lab. Sec. a Sec 9:30
15 Lab. Sec 8:30

13 Lab. Sec. a Sec 2 00

13 Lab. Sec. a Sec 2 00

Courses 30, 35, 38, 41, 42, 43, 44, see p. 8

XXV. NEUROLOGY

1 The Architecture of the Central Nervous System
Lect.: M, T, 9 30
Lab., Th, F R 22
Sec 2 00

1 Lab. Th, F 2 00-4 00 R 22

1 Lab. Th, F R 22 Sec 2:00

Courses 11A, 4, 8, see p. 8

XXVI. PALÆONTOLOGY
See p. 8

Course 11, see p. 8

XXVII. BOTANY

1 *Elementary Botany* (Lyon)
8 30-10:30 Sec 9 30 W 12
Lab fee, $2.50
14 Special Morphology of Gymnosperms Sec 9 30 DM
(Coulter and Chamberlain)
Lect.: M, W, 9 30 W 23
Lab.: Tu, Th, F 8 30-10:30 W 24
Prerequ. Courses 8 and 9.—Lab fee, $2 50

1 *Elementary Botany*
Sec 8 30
14 Special Morphology of Gymnosperms Sec 8:30
Lect.: M, W 9:30 W 23

7 General Morphology of Thallophytes Sec 12:00 (Davis)
Lect.: Tu, Th 12:00 W 31
Lab.: M, W, F 11:00-1:00 W 31
Prerequ. Course 1 Lab fee, $2.50
30 Ecological Anatomy Sec 12:00 (Cowles and Howe)
Lect.: Tu, Th 11:00 W 23
Lab.: M, W, F 11:00-1:00 W 33
Prerequ. Courses 1, 2, and 3.—Lab. fee, $2 50

7 General Morphology of Thallophytes
Lect.: Tu, Th 12:00 W 31
Sec 11 00
30 Ecological Anatomy Sec 11:00

3 Elem. Ecology (Cowles and Howe)
Lec.: Tu Th 3 00 Sec 3:00 W 13
Lab.: M, W, F 2:00-4:00 W 33
Prerequ. Course 1
5 Elementary Anatomy Sec 3 00 (Coulter and Chamberlain)
Daily 2 00-4 00
Prerequ. Course 1. Lab. fee, $1 50
20 Plant Physics Mj or DMj (Barnes and Assistant)
Sec 3:00 W 43
Lab.: Tu, Th, F 3 00-4 00 W 43
Prerequ. Courses 7 or 28.—Lab fee, $2 50
40 Elementary Plant Pathology Sec 3 00 (Hasselbring)
Lect.: Tu, Th 3:00
Lab.: M, W, F, 3 00-4 00
Prerequ. Courses 1 and 2.—Lab fee, $2 50
3 *Elementary Ecology* Sec 2:00
5 Elementary Anatomy Sec 2:00
Daily 2 00-4:00
20 Plant Physics Sec 2:00
Lect.: M, W 3:00 W 23
40 Elementary Plant Pathology Lect.: Tu, Th 3:00 Sec 2:00

Seminar in Ecology Mj or DMj Th (Cowles) 5:00

Courses 18, 19, 29, and 39, see p. 8

XXVIII. PATHOLOGY AND BACTERIOLOGY

1 General Bacteriology 1½ Mj
(Jordan, Harris and assist.)
Lect.: M, T, Th, 8:30 Z 16
Lab.: Sec. a Sec 11:00
Sec. b Sec 2 00

7 General Morphology of Thallophytes Sec 12:00 (Davis)
Lect.: Tu, Th 12:00 W 31
Lab.: M, W, F 11:00-1:00 W 31
Prerequ. Course 1 Lab fee, $2.50
30 Ecological Anatomy Sec 12:00 (Cowles and Howe)
Lect.: Tu, Th 11:00 W 23
Lab.: M, W, F 11:00-1:00 W 33
Prerequ. Courses 1, 2, and 3.—Lab. fee, $2 50

1 General Bacteriology
Lab.: Sec. a M, T, W, Th, F, 11:00-12:00 Z 25, 36, 43
Lab fee, $2.50

1 Lab. Sec. a Sec 11:00

1 Lab. Sec. b Sec 2 00

Courses 4, 9, 10, 11, 14, see p. 8

XXIX. PUBLIC SPEAKING

2 Development of Expression (Blanchard)
R 16
Prerequ. Consent of Course 1

4 Practical Oratory (Blanchard)
R 16
Prerequ. Course 2 or Course 3

1A *Required Course*
Sec. a (men) M, Th (Gorsuch) R 14
Sec. b (women) T, F (Gorsuch) R 14

1A *Required Course*
Sec. c (men) M, Th (Gorsuch) R 14
Sec. d (women) T, F (Gorsuch) R 14

1A *Required Course*
Sec. e (men) M, Th (Nelson) R 16
Sec. f (women) T, F (Nelson) R 16

1A *Required Course*
Sec. g (men) M, Th (Nelson) R 16
Sec. h (women) T, F (Nelson) R 16

XXXII. PHYSICAL CULTURE
For Junior and Senior Colleges

A. MEN

A physical examination is required of all undergraduates. Special appointments are to be made for this purpose

1a Elementary Work (Dudley)

8 Intermediate Course (——) 11 15
Open to those who have had two or three quarters of gymnastics work

10 Track and Field Athletics (Stagg) 11 15

1 Elementary Course
Sec. a (men) M, Th (Nelson) 12 15
Especially adapted for those who have had no previous training

2b Intermediate Work (Livermore)
Prerequ. 1 or an equivalent

1b Elementary Work (Comstock) 2:15

20 Basket Ball (——) 3:15
31, 32, 33 Football (Stagg) 3:00
For candidates for the University Reserve and Freshman teams

1c Elementary Work (Comstock)
6b Basket Ball W, F
7a Rowing Tu, Th 3:15

10 Advanced Gymnastics 4 15
Limited to candidates for the Gymnastic Team
34, 35 Football 4:00 (Stagg)
For candidates for Scrub and Class Teams
41 Cross Country and Long Distance Running (Stagg) 4:15
5 General exercise Course

1d Elementary Work (Livermore)
5b Hockey Tu, Th
6c Basket Ball W, F
7b Rowing Tu, Th 4:15
2c Intermediate Work (Livermore)

B. WOMEN

2a Intermediate Work (——)

1a Elementary Work (Dudley)

3 Advanced Work (Dudley)
Prerequ. 2 years work

Courses 53, see p. 8

II. COURSES OFFERED BY THE FACULTY OF THE DIVINITY SCHOOL

REVISED FOR THE AUTUMN QUARTER, 1904

	XLI. OLD TESTAMENT LITERATURE AND INTERPRETATION	XLII. NEW TESTAMENT LITERATURE AND INTERPRETATION	XLIII. BIBLICAL THEOLOGY	XLIV. SYSTEMATIC THEOLOGY	XLV. CHURCH HISTORY	XLVI. HOMILETICS	XLVII. ECCLESIASTICAL SOCIOL'GY	XXXI. PUBLIC SPEAKING
8:30	198 Arabic Literature of the Jews Mj (Hirsch) ⅊ 33 210 Beginning Hieroglyphic (Breasted) ⅊ 24 212 Translation of Egyptian Texts Mj (Breasted) ⅊ 24	55 Christian Literature to Eusebius Mj (Goodspeed) ⅊ 35			1 Outlines of Church History Mj (Moncrief) ⅊ 26 *Required* 6 The Conversion of Northwestern Europe Mj (Hulbert) ⅊ 36			
9:30	130 Halakkic Themes Mj (Hirsch) ⅊ 21 212 Translation of Egyptian Texts from the Classic Period (Breasted) ⅊ 24 216 Egyptian Literature Mj (Breasted) ⅊ 24	1 New Testament Greek Mj (Goodspeed) ⅊ 26 *Required* 33 Epistle to the Romans Mj (Burton) ⅊ 28			14 Mediæval Ideas and Institutions Mj (Moncrief) ⅊ 36			
11:00	2 Historical Hebrew: The Books of Samuel Mj (Willett) ⅊ 21 139 Rabbinical Philosophy Mj (Hirsch) ⅊ 33 144 Beginning Syriac Mj (R. F. Harper) ⅊ 23	41 New Testament Quotations Mj (Burton) ⅊ 28		23 Outline Course in Systematic Theology Mj (Smith) ⅊ 32 *Required*			53 The Family Mj (Henderson) ₵ 16 c	
12:00	115 The Rise of the Jewish State Mj (Willett) ⅊ 21 136 History of Jewish Sects M 1T (Hirsch) ⅊ 33 222 Coptic Language Mj (Breasted) ⅊ 24 150 Assyrian Language Mj (R. F. Harper) ⅊ 23			14 Protestant Theology of the Reformation Period Mj (Smith) ⅊ 32			63 Ecclesiastical Sociology Mj (Henderson) ₵ 16 c *Required*	21 Practical Public Speaking Mj (Blanchard) ⅊ 17
2:00	1 Hebrew Language Mj (Price) ⅊ 21 113 History of the Hebrews from the Beginnings to Solomon Mj (G. S. Goodspeed) ⅊ 25	63 The Teaching of Jesus Mj (Votaw) ⅊ 28	63B The Teaching of Jesus Mj (Votaw) ⅊ 28	6 Psychology of Faith Mj (Foster) ⅊ 32	18 The German Reformation Mj (Johnson) ⅊ 36 *Required*			
3:00	84A The Origin, Growth, and Character of the Prophetic Books Mj (Price) ⅊ 21 *Required* 116 The History of Antiquity through the Persian Empire Mj (G. S. Goodspeed) ⅊ 25	44 Rapid Reading in the Septuagint. Mj (Votaw) ⅊ 28	84A The Origin, Growth, and Character of the Prophetic Books Mj (Price) ⅊ 21 *Required*	7 Philosophy of Religion Mj (Foster) ⅊ 32		2 Homiletics Mj (Johnson) ⅊ 36 *Required*		
4:00 TO 6:00	26 Seminar: Ezekiel Mj (Price) Tu, F ⅊ 21				69 Seminar: The American Baptists Mj (Hulbert) Tu, F ⅊ 36			
Hour to be Arranged	162 Epistolary Literature Mj (R. F. Harper) ⅊ 23						58 Sem.: Methods of Social Amelioration Mj (Henderson) ₵ 16c	

III. THE LAW SCHOOL

Revised for the Autumn Quarter, 1904

	FIRST YEAR.	SECOND AND THIRD YEARS
8:00		24 Trusts (Mack) Tu, W, F
8:30	3 Property (Bigelow) Tu, W, Th, F	51 Private Corporations (Mechem) Tu, W, Th, F 90 Practice (Tenney) Sa
9:30	2 Torts (Hall) M, Tu, W, F	30 Suretyship (Whittier) M, W, F 52 Bankruptcy (Bigelow) Tu, Th 91 Practice (Tenney) Sa
11:00		52 Bankruptcy (Bigelow) M 50 Partnership (Mechem) Tu, W, Th, F
12:00	1 Contracts (Whittier) M, W, Th, F	20 Equity I (Contracts) (Hall) M, Tu, W, Th 52 Bankruptcy (Bigelow) F
2:00		14 Title to Real Estate (Freund) M, Tu, W, Th
3:00		63 General Constitutional Law (Freund) M, Tu, W, Th
4:00		

IV. THE COLLEGE OF EDUCATION

Revised for the Autumn Quarter, 1904

8:30

24 The Elementary School Curriculum. (Open only to those qualified for observation or teaching in the Elementary School.) (Jackman) 309
122 Food and Dietetics. Lect.: M, W, Th.; 1 hr. Lab.: M, T.; 2 hrs. 2:00–4:00 (Norton) 388
Prerequisite: 121 or equivalent
4 Genetic Psychology (Gore) 392
Prerequisite: Elementary Psychology
151 Elementary Clay Modeling M, Tu, W, Th 2 hrs. (Hollister) 493
152 Clay Modeling M, Tu, W, Th 2 hrs. (Hollister) 493
Prerequisite: Course 151
168 Theory and Practice of Art Instruction. 4 hrs. Theory; 4 hrs. practice teaching M, T, Th, F (Cushman) 400
184 Special Course in Woodworking 2 hrs. (Langley) 404

9:30

25A History of Educational Theories and Practice (from the time of the Greeks to the Reformation (Required) M, Tu, W, Th (Locke) 213
31 Teachers' Training Course in History (for secondary teachers) (Rice) 204
53 Interpretation of Children's Stories. (Elective, required of second-year special students) (Fleming) 214
Prerequisite: Course 51
82 Pedagogical Aspects of Field and Laboratory Work in Nature Study. (Required) (Meyers) 309
110 Geography in the High School. (Open to those who are qualified for observation or teaching in the High School) (Baber) 210
127 Evolution of the House (Norton) 384
142A History of Music ½ Mj (G. Smith) 408
144A Harmony ½ Mj (G. Smith) 408
151 See 8:30 (Hollister) 493
152 See 8:30 (Hollister) 493
184 See 8:30 (Langley) 404

11:00

32 History and Literature for Primary Grades, For first-year students (Rice) 204
51 Oral reading. General Course. (Required) (Fleming) 214
102 Geography of North and South America. Second year (Baber) 210
131 Elementary Mathematics. (Academic) (Myers) 110
146A Theory of Music ½Mj (G. Smith) 408
0143 Music in Kindergarten and Primary Grades. Non-credit; Tu, F ½Mj by special arrangement (E. Smith) 410

12:00

1 Elementary Psychology. (Introductory) (Required) (Gore) 392
83 Nature Study in the Elementary School. (Open only to those qualified for observation and practice in Elementary School) (Jackman) 309
137 General Astronomy (Myers) 110
141A Study and Criticism of School Music. (Open only to those taking training as special music teachers, or who have had considerable training) ½Mj. Tu, F (E. Smith) 410

2:00

81 Nature Study. Field Work. (Must be taken in Course 101A) ½Mj (Meyers) 309
101A Geography and Field Work. (Must be taken with Course 81) ½Mj (Meyers) 309
122 Food and Dietetics See 8:30 2 hrs. M, T (Norton) 388
124 Special Methods in the Preparation of Food. Advanced Lab.: Th, F 2½ hrs. ½Mj or Mj (Norton) 388
0147A General Course in Singing Non-credit; Tu, F ½Mj by special arrangement (E. Smith) 410
165 Elementary Drawing and Painting. (Required for Course B) 2 hrs. M, Tu, Th, F (Cushman) 400
0161 Design. (Required for Course A) Non-credit; W 3 hrs. (Cushman) 400
0173 Textiles. Elective Non-credit; 3 hrs. Tu (Purdy) 492
Prerequisite: Courses 0171 and 0172 in Textiles
180 Sewing 2 hrs. (Mitchell) 492
183 Woodwork ½ Mj. M 2:00–3:00; Th 2:00–5:00 (Butler) 404
0183 Woodwork Non-credit. Th 2:00–5:00 (Butler) 404
201 Fundamental Gymnastics (For Course B) ½ Mj (Kroh) Gym
0201 Fundamental Gymnastics (For Course A) non-credit (Kroh) Gym
221 The Economic Use of Books and Libraries. (For first-year students) ½ Mj. M, W (Warren) 201
0163 Elementary Drawing and Painting (Elective) Non-credit F 3 hrs. (Cushman) 400

3:00

12 Methods and Problems in the Kindergarten and Elementary School. (For second-year students) (Payne) 392
27A Seminar: A Comparative Study of National School Systems of England, Germany, and America Tu (Locke) 213
122 Food and Dietetics. See 2:00 (Norton) 388
124 Special Methods in the Preparation of Food. See 2:00 (Norton) 388
165 Elementary Drawing and Painting. See 2:00 (Cushman) 400
0161 Design. See 2:00 (Cushman) 400
0173 Textiles. See 2:00 (Purdy) 492
180 Sewing. See 2:00 (Mitchell) 492
183 Woodwork. See 2:00 (Butler) 404
0183 Woodwork. See 2:00 (Butler) 404
0163 Elementary Drawing and Painting. See 2:00 (Cushman) 400
204 General and Applied Gymnastics. (For Course B) For elementary, high school and critic teachers. Second year M, W, F (Kroh) Gym
Prerequisite: Courses 201 and 202, or 203, or equivalents

4:00

27A Seminar. See 3:00 (Locke) 213
124 Special Methods in the Preparation of Food. See 2:00 (Norton) 388
0161 Design. See 2:00 (Cushman) 400
0163 Elementary Drawing and Painting See 2:00 (Cushman) 400
0173 Textiles See 2:00 (Purdy) 492

Hours to Be Arranged

174A Textiles. Advanced. For second year and special students. Individual laboratory work (Mitchell and Purdy) 492

3 0112 105737800

LABORATORY, RESEARCH, AND SEMINAR COURSES

in which the hours are to be arranged with the instructors.

I. PHILOSOPHY.

29A Reading of a Standard French or German Author throughout the year. (Tufts)

50 Seminar: Research in the History of Ethical or Æsthetic Theory. (Tufts) ℞

Hours to be arranged.

92 Special Research. (The Instructors in Department.)

IA. PSYCHOLOGY.

13 Experimental Psychology: Research Course. (Angell and Watson) Psy Lab

II. POLITICAL ECONOMY.

80 Economic Seminar. (Laughlin)

VII. COMPARATIVE RELIGION.

10 Comparative Theology: Research. (Goodspeed)

X. SANSKRIT.

30 Elementary Japanese. (Yoshioka)

27 Elementary Russian. (——)

XVII. MATHEMATICS.

44 Practice Teaching of Mathematics by the Laboratory Method. (Moore)

45A, B, C, D Mathematical Reading and Research. (Moore, Bolza, Maschke, Dickson)

XVIII. ASTRONOMY AND ASTROPHYSICS.

At the Yerkes Observatory.

56 Stellar Spectroscopy. DMj (Frost)

57 Celestial Photometry. (Frost)

58 Astronomical and Astrophysical Research. (Barnard and Frost)

XIX. PHYSICS.

32 Experimental Physics. (Michelson and Gale)
Prerequ.: Physics 16, 17, 18.

33 Research Course. DMj (Michelson and Gale)

XX. CHEMISTRY.

9 Quantitative Analysis (continuation of Course 8).[3] Mj or DMj (Stieglitz and Barnard) ℞ 31

10 Advanced Qualitative Analysis.[3] Mj or DM (Holmes) ℞ 42

11 Advanced Quantitative Analysis.[3] Mj or DM (Stieglitz) ℞ 31
Prerequ.: Course XX-10.

13 Special Methods in Quantitative Analysis. Mj or DM (Stieglitz) ℞ 31

20 Organic Preparations.[4] Mj or DM (Nef) ℞ 21

21 Organic Preparations.[4] Mj or DM (Nef) ℞ 21

22 Organic Preparations.[4] Mj or DM (Nef) ℞ 21

25 Inorganic Preparations.[4] Mj or DM (Jones) ℞ 21
Prerequ.: Qualitative and Quantitative Analysis and knowledge of French and German.

26 Inorganic Preparations.[4] Mj or DM (Jones) ℞ 21

27 Inorganic Preparations.[4] Mj or DM (Jones) ℞ 21

28B Physical Chemistry. Lab. Course. Mj or M (McCoy)
Prerequ.: College Physics (1), Quant. Analysis (8), Elem. Physical Chemistry (28A).

[3] Courses 6, 7, and 10 constitute three quarters work. Any one of these courses may be taken as a Mj or as a DM. The same arrangement holds for Courses 8, 9, and 11. Laboratories are open daily, 8:00–6:00 (Sat. 8:00–1:00). Instruction in Quantitative Analysis is given Mon. to Thurs., 2:00–5:30, and Fri., Sat., 9:00–12:30 only. Instruction in Qualitative Analysis is given Mon., Wed., 2:00–5:30, and Fri., Sat., 9:00–12:00. Students must register with the instructor for definite hours covering at least two-thirds of the assignment within these limits, and must secure a desk. The number of desks is limited, and registration is incomplete until the desk is secured.

[4] Courses 20, 21, and 22 constitute three quarters work, and may be begun any quarter. Any one of these courses may be taken as Mj or as a DM. The same principles apply to Courses 25, 26, and 27.

Note—Laboratory fees are due, in addition to the tuition fees for all laboratory courses in the Department of Chemistry, as follows: M courses, $2.50; Mj or DM courses, $5.00; DMj courses, $10.00. No fee is charged for Courses 14, 29, 38, 43.

In addition to the laboratory fee, a breakage ticket costing $2.50 must be purchased by all students taking Chemistry. The value of the unused portion of this ticket is refunded.

31 Advanced Physical Chemistry. Lab. Course. Mj or DM (McCoy)

32 Advanced Physical Chemistry. Lab. Course. Mj or DM (McCoy)

33A Research. (Nef) ℞ 24

33B Research. (Smith) ℞ 24

33C Research. (Stieglitz) ℞ 24

33D Research. (McCoy) ℞ 24

43 Club Meetings. ℞ 22

XXI. GEOLOGY.

33 Special Petrology. Mj or DMj (Iddings)

40 Principles and Theories of Geology. (Chamberlain)
Prerequ.: Courses 15 and 16, or their equivalents, the elements of Mineralogy and Petrology, and their antecedents.

43 Special Geology. (Chamberlain and Salisbury)

XXIA. GEOGRAPHY.

30 Research Course. Mj or DMj (Salisbury and Goode)

XXII. ZOÖLOGY.

41 Zoölogical Problems. DMj (Whitman, Lillie, Child, and Tower).
Lab. fee, $2.50.

49 Seminar; General Biological Topics. (Whitman, Lillie, Child, and Tower)

XXIII. ANATOMY.

15 Splanchnology; Topographical Relations of the Thoracic and Abdominal Viscera. ½Mj (Cohoe)

40 Advanced Work. 1-3 Mj (Barker, Bensley, Lewis and others)

41 Research Work. 1-4 Mj (Barker, Bensley, Lewis, and others)

XXIV. PHYSIOLOGY.

30 The Cells and Liquids of the Body in their Physico-Chemical Relations. Mj. (Stewart)

36 The Action of Drugs on Mammals. Mj (S. A. Mathews)

38 The Chemistry of Protoplasm. Mj (A. P. Mathews)

41 Seminar. (Stewart)

42 Research Work in Physiological Chemistry. Mj or DMj (A. P. Mathews, S. A. Mathews and others)

43 Research Work in Pharmacology. Mj or DMj (A. P. Mathews, S. A. Mathews and others)

44 Research Work in Physiology. Mj or DMj (Stewart)

XXV. NEUROLOGY

11A Physical and Chemical Characters of the Nervous System in Relation to Histological Technique. ½Mj (Hatai)

4 Seminar. 2 hrs. a week, 3:00–5:00. (Donaldson)

8 Research Course (Donaldson and Hatai)

XXVI. PALÆONTOLOGY.

11 Vertebrate Palæontology Mj or DMj (Williston)
Prerequ.: Courses 1, 2 and 3, or equivalent.

XXVII. BOTANY.

18 Advanced Morphology. (Coulter, Barnes, Davis, and Chamberlain)
Lab fee, $2.50.
Prerequ: The course in Special Morphology of group chosen.

19 Research in Morphology. (Coulter, Barnes, Davis, and Chamberlain)
Lab. fee, $2.50.

29 Research in Physiology. (Barnes and Livingston)
Lab. fee, $2.50.

39 Research in Ecology. Mj or DMj (Cowles)

XXVIII. PATHOLOGY.

4 Advanced Bacteriology. Mj (Jordan Harris)

9 Advanced Pathology. Mj or DMj (Ricketts)

11 Research in Bacteriology. (Jordan Harris)

14 Bacteriology of Autopsies. Mj (Ricketts and Harris)